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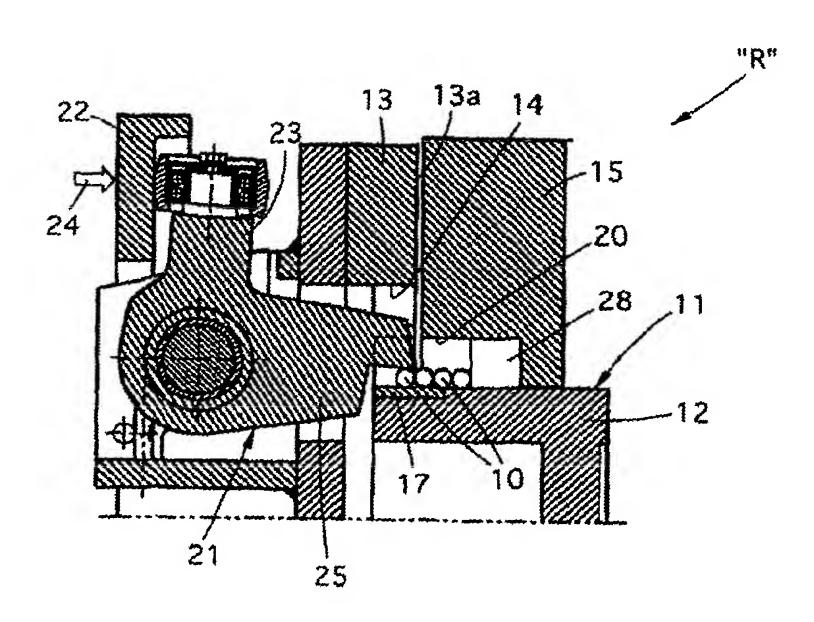
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(54) Title: COILING DEVICE AND METHOD FOR ROLLED OR DRAWN LONG PRODUCTS



(57) Abstract: Coiling device ("R") relative and method for a windable long, metal product (10). The device ("R") comprises a mandrel (12) having a substantially circular transverse section and rotating around a horizontal, vertical or inclined axis, and at least a guide and containing device (15, 16) which is driven between a first working position wherein it cooperates with the mandrel (12), and a second inactive position wherein it is arranged distant from the mandrel (12). The coiling device ("R") also comprises at least a clamping device (21) associated with the mandrel (12), which clamps at least temporarily an initial segment of the metal product (10).

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B21C47/30 B21C47/32 B21C47/32 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 B21C B65H Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Category ° US 3 592 399 A (WOODROW HAROLD E) 1,2,4,6, Α 7,17,20 13 July 1971 (1971-07-13) cited in the application column 2, line 63 - column 3, line 49 column 4, line 8 - line 20; figures PATENT ABSTRACTS OF JAPAN 1,2,4,6, vol. 012, no. 157 (M-696), 7,17,20 13 May 1988 (1988-05-13) & JP 62 275980 A (MIRAI IND CO LTD; others: 01), 30 November 1987 (1987-11-30) abstract EP 1 126 934 A (DANIELI OFF MECC) 1,8-10, 29 August 2001 (2001-08-29) cited in the application paragraph '0036! - paragraph '0037!; claim 7; figures -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to "L" document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone which is cited to establish the publication date of another "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the *O* document referring to an oral disclosure, use, exhibition or document is combined with one or more other such documents, such combination being obvious to a person skilled other means in the art. 'P' document published prior to the international filing date but "&" document member of the same patent family later than the priority date claimed Date of the actual completion of the international search Date of mailing of the international search report 24/05/2005 12 May 2005 Name and mailing address of the ISA **Authorized officer** European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Barrow, J Fax: (+31-70) 340-3016

INTERNATIONAL SEARCH REPORT

Int nal Application No
PCI/1B2005/000109

	ition) DOCUMENTS CONSIDERED TO BE RELEVANT			
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	US 3 945 585 A (MOSLENER JORN) 23 March 1976 (1976-03-23) column 3, line 60 - column 4, line 32; figures	1,2,7,8,		
Α	GB 1 367 513 A (V N I KONSTR I METALLURG MASH) 18 September 1974 (1974-09-18) page 2, line 3 - page 3, line 2; figures	1		
A	DE 26 49 340 A (KOCKS GMBH FRIEDRICH) 11 May 1978 (1978-05-11) page 11, paragraph 2 - paragraph 3 page 13, paragraph 2 - paragraph 3; figures	1,2,7, 17-19		
A	FR 2 516 063 A (TECH TREFILES OFF) 13 May 1983 (1983-05-13) page 2, line 9 - page 3, line 1; figures	1,2,4		
	·			

INTERNATIONAL SEARCH REPORT

In: iai Application No
Pull 32005/000109

					, 0,, 222303, 000233	
Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
US 3592399	A	13-07-1971	CA DE FR GB JP	927359 A1 2027516 A1 2057722 A5 1277515 A 48017699 B	29-05-1973 18-02-1971 21-05-1971 14-06-1972 31-05-1973	
JP 62275980	Α	30-11-1987	JP JP	1726114 C 4011466 B	19-01-1993 28-02-1992	
EP 1126934	Α	29-08-2001	IT AT AU DE DE EP ES WO US	1302794 B1 235328 T 6225699 A 69906351 D1 69906351 T2 1126934 A1 2194516 T3 0025951 A1 6318660 B1	29-09-2000 15-04-2003 22-05-2000 30-04-2003 04-12-2003 29-08-2001 16-11-2003 11-05-2000 20-11-2001	
US 3945585	A	23-03-1976	DE FR IT JP JP JP	2359139 A1 2252143 A1 1026559 B 891621 C 50110959 A 52016985 B	05-06-1975 20-06-1975 20-10-1978 24-12-1977 01-09-1975 12-05-1977	
GB 1367513	Α	18-09-1974	NONE			
DE 2649340	Α	11-05-1978	DE	2649340 A1	11-05-1978	
FR 2516063		13 - 05-1983	FR	2516063 A1	13-05-1983	